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International Exhibition of 1876.

H O S P I T A L

OF THE

Medical Department, United States Army.

No. 10.

DESCRIPTION OF SELECTED SPECIMENS

FROM THE

MEDICAL SECTION OF THE ARMY MEDICAL MUSEUM

AT WASHINGTON.

EXHIBITED IN ROOM No. 2.

J. J. WOODWARD,

Assistant Surgeon, U. S. A.,

IN CHARGE OF THE REPRESENTATION OF THE MEDICAL DEPARTMENT, U. S. A.

Philadelphia, 1876.

INTERNATIONAL EXHIBITION OF 1876.

HOSPITAL

OF THE

Medical Department, United States Army.

DESCRIPTION

OF THE

SELECTED SPECIMENS FROM THE MEDICAL SECTION OF THE ARMY MEDICAL MUSEUM.

THE Medical Section of the Army Medical Museum is represented in the International Exhibition of 1876 by its printed Catalogue,* copies of which will be found at the Hospital of the Medical Department, in rooms No. 2 and 4, and by a small number of selected specimens exhibited in room No. 2, for the purpose of illustrating the character of the collection.

The primary object of the Medical Section of the Museum was to collect and preserve specimens illustrative of the diseases of soldiers, for the purpose of aiding in the study of the nature of these affections. It was desired, especially, to collect specimens of the pathological changes characteristic of those diseases which in time of war produce the chief mortality of armies, such as camp fevers and disorders of the intestinal canal. Accordingly a large proportion of the medical specimens collected during the civil war of 1861-'5 were of this character. Since the close of the war, however, a number of specimens have been received, which, although collected in military practice, represent diseases which occur also in civil life; and as the medical officers of the Army on duty

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at garrisoned posts attend the families of the officers and enlisted men of the garrisons, a number of specimens have also been received which illustrate the diseases of women and children. Moreover, within the last few years, a number of interesting medical specimens have been presented to the Museum by physicians engaged in civil practice in various parts of the country, so that circumstances seem to favor an extension of the original design, and warrant the hope that the Collection will eventually become a general pathological museum, embracing material for the study of all the various forms of disease.

A similar extension of the original plan has taken place in the Surgical Section, which now embraces a large number of specimens illustrative of the most diverse injuries and surgical affections, as well as of those which are especially characteristic of war; and, simultaneously, considerable collections of specimens of human and comparative anatomy and a large number of microscopical preparations have been accumulated, which are available for useful collateral study in connection with the Medical and Surgical Collections.

Accordingly, the Army Medical Museum, which at the date of the last annual report of the Surgeon General contained 18,109 specimens, is now divided into six sections, as follows:

In charge of Assistant Surgeon J. J. WOODWARD, U. S. A.

Medical Section.....	1279 specimens.
Microscopical Section.....	7275 “
Comparative Anatomy Section.....	1522 “

In charge of Assistant Surgeon G. A. OTIS, U. S. A., Curator.

Surgical Section.....	6539 specimens.
Anatomical Section.....	1254 “
Miscellaneous Section.....	240 “

The pathological preparations contained in the Medical Section are for the most part preserved in the wet way, and preference is given to dilute alcohol as the preservative medium. The chief objection to this medium is the expense of replacing the annual loss by evaporation, which, in a large collection, would amount to a considerable item if the old plan of covering the jars with bladders stretched over their mouths was adhered to. But by the plan actually adopted at the Museum, the wide-mouthed jars are closed with carefully-fitted ground stoppers. The loss by evaporation from such jars is altogether insignificant, and the difference in the first cost of the jars is but trifling. The jars used at the Museum have a glass hook depending from the under surface of the stopper, which serves for the suspension of the specimen, and the stoppers being readily removable, permit the specimens to be taken out

conveniently at any time for the purpose of minute study. Intestinal preparations are usually displayed by stretching the piece upon a frame made of a glass rod bent into the desired form; and such frames, of various forms and sizes, occasionally serve for the convenient display of other specimens.

Specimens intended for the Medical Section of the Museum will be gladly received, not only from medical officers of the Army, but from physicians engaged in private practice in any part of the country. Such specimens, to possess value, should clearly exhibit some characteristic lesion, and should be accompanied by a carefully recorded history of the case. Examples of rare lesions are always acceptable, even when the history is imperfect; but specimens illustrative of the more common forms of disease are valued only in proportion to the care with which the history has been recorded and the degree to which the dissection throws new light on the nature of the affection in question. Specimens of congenital malformations and of monsters are particularly acceptable, duplicates serving to make dissections for the display of internal structure. The Museum possesses at present but forty-one specimens of this class, and additional examples are much desired.

Pathological specimens intended for the Army Medical Museum should be preserved in a sufficient quantity of dilute alcohol. Ordinary proof spirit or common whiskey answers the purpose very well. The quantity should be at least three times the bulk of the specimen. Large specimens, such as diseased livers, &c., have quite frequently been received at the Museum so much decomposed as to be useless, because this precaution had been neglected. Small specimens may be packed for transportation to the Museum in ordinary preserve jars; large ones in carefully soldered tin cans or small wooden kegs. When such specimens are forwarded by private physicians, the cost of transportation is always borne by the Museum, which also furnishes the jars and alcohol needed for the permanent preservation of specimens.

To avoid disappointment, it is suggested that physicians who may have medical specimens, which they would like preserved at the Museum, should communicate to the officer in charge of the Medical Section a brief memorandum of the nature of the specimen, when they will be informed whether they are desired and how they can best be sent. Specimens which have served as the basis of original communications published in the medical journals have especial interest, and it is suggested that the permanent preservation of such specimens can be better effected by presenting them to the Army Medical Museum than in any other way, and that nowhere else are they likely to be so well taken care of or so accessible for study.

The specimens from the Medical Section, selected for the International Exhibition of 1876, will be found in two cases in room No. 2 of the Hospital of the Medical Department. They are for the most part specimens collected during the war of 1861-'5, and serve to illustrate some of the morbid conditions incident to soldiers. The numbers in parentheses are the Catalogue numbers of the specimens.

J. J. WOODWARD,

Assistant Surgeon, U. S. A.,

In charge of the Medical, Microscopical, and

Comparative Anatomy Sections, Army Medical Museum,
and of

The Representation of the Medical Department, U. S. Army,

at the International Exhibition

MEDICAL SECTION, ARMY MEDICAL MUSEUM.

THE first three specimens are tumors from within the cranial cavity. In two of the cases, disturbances of the cerebral functions were observed during life, while in the third, although the tumor attained great size, it produced no symptoms which attracted attention, and the patient continued to do duty as a soldier until attacked by typhoid fever, which proved fatal.

1. (531.) An oval tumor (Müller's cholesteatoma) an inch and a half in diameter, which was attached to the inner surface of the frontal bone three-quarters of an inch above the right orbital plate. It was composed of flattened polygonal cells arranged concentrically in layers, between which lay great numbers of cholesterine plates. Suspended beneath the tumor in the jar is a needle-like spiculum of bone, three-quarters of an inch long, which was removed from the lesser wing of the sphenoid bone on the right side, whence it projected upwards, backwards, and outwards. From a soldier of the 16th Indiana Artillery, age 21, who had long suffered from epilepsy, and who died during an epileptic fit. (*Cat. of Med. Sect.*, 1867, p. 4.) Contributed by Surgeon W. J. Wolfley, U. S. Vols.

2. (300.) Cerebellum divided in the median line. In its anterior superior part there is an oval sarcomatous tumor the size of a walnut. It was composed of delicate spindle-shaped cells, with numerous large oval vesicles resembling atrophied nerve-cells. From a soldier of the 52d Ohio, age 28, who, one month before death, was attacked with pain in the head, followed by mental disturbance and prostration. (*Cat. of Med. Sect.*, 1867, p. 4.) Contributed by Acting Assistant Surgeon H. M. Lilly.

3. (535.) An oval sarcomatous tumor, three inches long by two and a half wide, situated between the posterior lobes of the cerebrum, and attached below to the tentorium and crura cerebelli. It was composed of spindle-shaped nucleated cells, with a scanty matrix. From a soldier of the 2d Massachusetts, who died of typhoid fever, with the usual intestinal lesions. So far as known, no symptoms had been produced by the tumor. (*Cat. of Med. Sect.*, 1867, p. 4.) Contributed by Assistant Surgeon R. F. Weir, U. S. A.

In the following case no brain symptoms attracted attention during life:

4. (566.) Portions of brain containing echinococcus cysts. From a soldier of the 135th U. S. Colored, who died of chronic diarrhœa. (*Cat. of Med. Sect.*, 1867, p. 6.) Contributed by Acting Assistant Surgeon W. C. Miner.

The next three specimens are illustrations of the extension of the diphtheritic process from the throat to the air passages.

5. (585.) Larynx and trachea lined with diphtheritic membrane. 6. (586.) A portion of the lung of the same patient, showing diphtheritic casts in the branches of the bronchial tubes. From a medical officer who died of diphtheria. (*Cat. of Med. Sect.*, 1867, p. 32.) Contributed by Assistant Surgeon G. M. McGill, U. S. A.

7. (446.) Lower part of nose, with vomer and parts of superior maxillary bones attached; the nasal mucous membrane coated with diphtheritic membrane. The cartilaginous septum is perforated anteriorly by an old ulcer. From a soldier of the 4th Vermont, age 31, in whom diarrhœa supervened upon an amputation of the right leg for shot injury. Diphtheria set in a few days before death, and extended from the throat to the nasal mucous membrane. (*Cat. of Med. Sect.*, 1867, p. 33.) Contributed by Acting Assistant Surgeon G. W. Fay.

The next two specimens illustrate cases of laryngitis. The first terminated fatally by inflammatory closure of the glottis. The second by necrosis of the cricoid cartilage, and the formation of an abscess, which produced suffocation.

8. (652.) Larynx and part of trachea, showing great thickening of the epiglottis, an incision into which discovered it to be infiltrated with pus. From a soldier of the 2d Arkansas Cavalry, age 26, who died of acute laryngitis. (*Cat. of Med. Sect.*, 1867, p. 30.) Contributed by Surgeon Wm. Watson, U. S. Vols.

9. (467.) Larynx and trachea, with enlarged bronchial glands attached. The larynx is laid open in the median line posteriorly; the incision passes through an abscess cavity, in the midst of which the necrosed cricoid cartilage lies free. From a soldier of the 5th Pennsylvania Heavy Artillery, who, while convalescent from chronic diarrhœa, was attacked by (right) pneumonia. Numerous small subcutaneous abscesses succeeded, and fourteen days before death dyspnœa and dysphagia. He died suffocated. Miliary tubercles and intercurrent pneumonia were found in the right lung. (*Cat. of Med. Sect.*, 1867, p. 29.) Contributed by Acting Assistant Surgeon W. C. Miner.

The following case is a good illustration of empyæma:

10. (334.) Right lung, with a portion of the thickened pleura costalis attached. The lung is collapsed to the size of a fist, and coated with a thin layer of lymph. From a soldier of the 14th New York Militia, who died of chronic pleurisy. The right pleural sac contained about a gallon and a half of pus. (*Cat. of Med. Sect.*, 1867, p. 36.) Contributed by Acting Assistant Surgeon Joseph Leidy.

The next case is an unusual example of foreign body in the air-passages.

11. (290.) Lumbricoid worm lying in the larynx, trachea, and right bronchial tube. From a soldier who was choked to death by the worm finding its way into the air-passages. (*Cat. of Med. Sect.*, 1867, p. 33.) Contributed by Acting Assistant Surgeon S. B. Ward.

The next two cases are examples of cardiac disease consecutive to rheumatism.

12. (172.) Portion of heart, showing aortic valves ulcerated and beset with fibrinous deposits; left ventricle greatly thickened. From a soldier of the 5th Massachusetts Battery, in whom the cardiac affection supervened upon articular rheumatism. Anasarca and great dyspnoea preceded death. The lungs were found greatly congested. There was a small quantity of fluid in the right pleural sac, and two ounces of fluid in the pericardium. (*Cat. of Med. Sect.*, 1867, p. 15.) Contributed by Acting Assistant Surgeon O. P. Sweet.

13. (332.) Heart and pericardium, the latter slit open to show its opposing surfaces plastered with pseudo-membranous lymph. From a soldier of the 124th New York, who had suffered six months from rheumatism, and died of pleuro-pneumonia and pericarditis. (*Cat. of Med. Sect.*, 1867, p. 18.) Contributed by Acting Assistant Surgeon G. B. Boyd.

In the next two cases sudden death occurred: In No. 14 from the rupture of a very small aneurism in a young subject; in No. 15 the cause appears to have been the establishment of a fistulous communication between the root of the aorta and the right auricle.

14. (558.) Small aneurism of the aorta, just above the semilunar valves; the sac, which is about the size of a walnut, has ulcerated through into the pulmonary artery and the pericardium. From a soldier of the 1st Maryland Veterans, age 22, who was apparently in good health, and doing guard-duty, when he suddenly fell insensible, and expired in a few moments. The pericardium was found distended with blood escaped from the ruptured aneurism. (*Cat. of Med. Sect.*, 1867, p. 21.) Contributed by Assistant Surgeon A. Ansell, 1st Maryland Veterans.

15. (346.) Heart, somewhat hypertrophied, with its aortic valves partly destroyed by an ulceration, which extends deeply into the substance of the heart and communicates by a fistulous orifice with the right auricle. From a soldier of the 89th Ohio, age 22, who died suddenly while under treatment for scrofula. (*Cat. of Med. Sect.*, 1867, p. 16.) Contributed by Assistant Surgeon C. J. Kipp, U. S. Vols.

The following case is an example of very extensive fibrinous heart-clots, formed probably during the death agony. Similar clots attracted much attention during the civil war, and were often erroneously supposed to have been the cause of death.

16. (638.) Heart, containing fibrinous clots in all its cavities: those in the left ventricle are long and ramifying, extending into the aorta and its branches; those in the right ventricle extend in the same way into the pulmonary artery and its branches, but are not so long. From a soldier of the 1st Connecticut Cavalry, age 50, who died of consumption, accompanied by paralysis of the lower extremities. The lungs were tubercular, and contained vomicae; the liver and kidneys fatty; the brain was soft, and the arachnoid somewhat opaque. (*Cat. of Med. Sect.*, 1867, p. 19.) Contributed by Surgeon P. A. Jewett, U. S. Vols.

The next twenty-three specimens are illustrative of the various phases of the typhous process. No. 21 is interesting on account of the degree to which the solitary follicles of the ileum are enlarged. In Nos. 22 and

23, a somewhat similar condition in the ileum is associated with intense catarrh of the colon and luxuriant tumefaction of its solitary follicles. In the case represented by Nos. 24 and 25, the co-existence of malarial poisoning is indicated by the extreme enlargement of the spleen. Nos. 26, 27, and 28 are from cases in which the scorbutic taint complicated the fever; the patches of Peyer are converted into pultaceous sloughs. Nos. 29 and 30 are examples of intestinal perforation. Nos. 32 and 35 exhibit the cicatrices left when typhoid ulcers heal. Nos. 36 and 37 are from a case in which the typhous process co-existed with dysentery, (a frequent complication.)

17, 18, 19. (**376, 378, 379.**) Successive portions of ileum presenting from above downwards gradual enlargement of Peyer's patches; the thickened patches have abrupt edges, and are in many instances slightly constricted at the base like flat "sessile fungi;" and the summits of some of them are more or less ulcerated; many solitary follicles are also diseased, forming oval elevations similar in character to the thickened Peyer's patches, but smaller in size. From a soldier of the 142d Ohio, who died of typhoid fever. Besides the intestinal lesion, the lungs were engorged, the spleen soft, and the mesenteric glands enlarged. (*Cat. of Med. Sect.*, 1867, pp. 23 and 54.) Contributed by Assistant Surgeon W. Thomson, U. S. A.

20. (**188.**) A portion of ileum presenting thickening and ulceration of Peyer's patches and some of the solitary follicles. From a soldier who died of fever. (*Cat. of Med. Sect.*, 1867, p. 55.) Contributed by Assistant Surgeon W. A. Bradley, U. S. A.

✓ 21. (**280.**) Portion of ileum with thickened Peyer's patches; its solitary follicles enlarged to polypoid tumors the size of small shot. From a soldier who died in Lincoln Hospital of a fever diagnosed "typhus." (*Cat. of Med. Sect.*, p. 54.) Contributed by Surgeon J. H. Bryant, U. S. Vols.

22. (**S17.**) A portion of ileum with Peyer's patches much thickened and ulcerated. The solitary follicles are enlarged to rounded tumors nearly the size of peas, many of them ulcerated at the apices; the villi are hypertrophied. 23. (**S21.**) A portion of the descending colon, with its solitary follicles enlarged to tumors the size of peas; their apices are ulcerated. From a soldier of the 12th U. S. Infantry, age 25, who died of typhoid fever. The whole colon was in the condition exhibited in the specimen. (*Cat. of Med. Sect.*, 1867, p. 65.) Contributed by Assistant Surgeon W. Thomson, U. S. A.

24. (**61.**) Portion of ileum with five thickened Peyer's patches, all ulcerated. 25. (**62.**) Enlarged spleen, nine by five and a half by two and a half inches. From a soldier of the 32d New York, age 21, who died of Chickahominy fever. (*Cat. of Med. Sect.*, 1867, pp. 57 and 97.) Contributed by Acting Assistant Surgeon Joseph Leidy.

26. (**90.**) Portion of ileum with a sloughing Peyer's patch, remarkable on account of the great size and pultaceous character of its thickening. From a soldier of the 124th New York, in whom the fever supervened upon chronic diarrhœa. The colon was of a dirty slate color, with streaks of inflammation here and there. Pneumonia on the right side. Spleen large and flabby. A number of irregular spots of purpura, from the size of a flea-bite to that of a dime, were observed on the skin, and especially on the thighs. (*Cat. of Med. Sect.*, 1867, pp. 34, 59, and 88.) Contributed by Acting Assistant Surgeon Joseph Leidy.

27. (181.) Portion of ileum presenting a thickened, ulcerated Peyer's patch; the thickening, when fresh, was grumous in consistency, and of a blackish color, tinged with a livid red; its margins were indistinctly defined. From a soldier who died of what the ward physician described as "an obscure disease resembling typhus." The mesenteric glands were large and soft; the lower lobe of the right lung hepatized. (*Cat. of Med. Sect.*, 1867, p. 59.) Contributed by Surgeon T. R. Crosby, U. S. Vols.

✓ 28. (468.) Lower portion of ileum, with ileo-cæcal valve and part of cæcum, showing three Peyer's patches converted into pultaceous sloughs; the solitary follicles are enlarged; many of them, especially near valve, ulcerated; these ulcers presenting same character as those of Peyer's patches, but smaller. There are also a number of small sloughing ulcers on the under surface of the valve and in the cæcum. From a soldier who contracted typhoid fever before Petersburg in the fall of 1864. Petechiæ, sudamina, and hæmorrhage from the bowels were prominent symptoms. (*Cat. of Med. Sect.*, 1867, p. 60.) Contributed by Acting Assistant Surgeon W. C. Miner.

29. (371.) Portion of ileum with two large ulcers of Peyer's patches, one of which has perforated. There are also a number of punched-out ulcers corresponding to the solitary follicles, and a pouch-like diverticulum, the mucous membrane of which also presents a number of follicular ulcers. From a soldier of the 5th New York Cavalry, who died of typhoid fever. Notwithstanding the extensive ulceration no diarrhœa occurred until within four days of death. There were five perforations in the ileum and evidences of general peritonitis. (*Cat. of Med. Sect.*, 1867, p. 60.) Contributed by Acting Assistant Surgeon H. M. Dean.

30. (479.) Portion of ileum, taken several feet above the ileo-cæcal valve, with two ulcerated Peyer's patches, which present a peculiar cribriform appearance. Near the bottom of piece is a deep oval ulcer, the long diameter of which is transverse to the gut. At the bottom of this ulcer are two oval perforations a short distance apart. The peritoneal surface of the piece is coated with a thin film of pseudo-membrane; some of the solitary follicles are ulcerated. The small intestines presented several other perforations. The patient had contracted fever before Petersburg, Virginia. (*Cat. of Med. Sect.*, 1867, p. 61.) Contributed by Surgeon W. L. Faxon, U. S. Vols.

31. (510.) A portion of the upper part of the ileum; 32, (511,) from near its middle; 33, (512,) from its lower part, including the ileo-cæcal valve. The pieces show pin-head enlargement of solitary follicles, with adherent shreds of pseudo-membrane. 511 presents a large oval cicatrix, corresponding in situation with a Peyer's patch. The ileum presented a number of such cicatrices. 34, (513,) is a portion of the descending colon, and shows many follicular ulcers, with a few adherent shreds of pseudo-membrane. From a patient who recovered from typhoid fever and subsequently died of chronic diarrhœa. (*Cat. of Med. Sect.*, 1867, p. 63.) Contributed by Acting Assistant Surgeon H. C. May.

35. (489.) Portion of ileum showing typhoid ulcers in various stages of cicatrization; the villi are hypertrophied, especially just around the cicatrices, giving a plush-like surface to the gut. From a soldier of the 7th New York Cavalry, who died of phthisis, after recovery from typhoid fever. Tubercles were found in both lungs, and a number of large vomices in the left lung. There was a deposit of black pigment at the apex of each of the hypertrophied villi of the small intestine. The colon was cream-colored; its solitary follicles black with pigment. (*Cat. of Med. Sect.*, 1867, pp. 37 and 63.) Contributed by Acting Assistant Surgeon W. C. Miner.

36, 37. (264 and 266.) Two portions of ileum exhibiting large, deep typhoid ulcerations. 38. (267.) Portion of the colon, exhibiting several large ulcers and many smaller ones. 39. (269.) Enlarged mesenteric glands. From a soldier of the 61st Ohio, in whom typhoid fever supervened upon a previously existing dysentery. (*Cat. of Med. Sect.*, 1867, pp. 24 and 68.) Contributed by Acting Assistant Surgeon Joseph Leidy.

The next four specimens are examples of catarrhal inflammation of the small intestines, with enlargement of the solitary glands. This condition was associated, in three of the cases, with catarrhal inflammation of the colon; in case 42 the lesions of diphtheritic dysentery existed in the colon. Simple catarrhal inflammation (of both small and large intestines) was common during the war both as an independent affection—the prominent symptom being diarrhoea—and as a complication of malarial fevers.

40. (97.) Portion of ileum, with enlargement of the solitary follicles and slight thickening of Peyer's patches. From a soldier of the 9th Wisconsin, who died of chronic diarrhoea. The large intestine was streaked and spotted with ash color and dark red on a red ground. Lobular pneumonia existed in the lower lobes of both lungs. (*Cat. of Med. Sect.*, 1867, p. 51.) Contributed by Acting Assistant Surgeon Joseph Leidy.

41. (84.) Portion of ileum, showing slight thickening of Peyer's patches and enlargement of the solitary follicles. From a soldier of the 26th Pennsylvania, age 40, who died of diarrhoea. The mucous membrane of the colon was soft, grayish, with a few streaks of inflammation and a few ecchymosed spots. (*Cat. of Med. Sect.*, 1867, p. 51.) Contributed by Acting Assistant Surgeon Joseph Leidy.

42. (87.) Portion of ileum, with its solitary follicles somewhat enlarged. From a soldier of the 132d Pennsylvania, who died with symptoms supposed to be due to typhoid fever. The mucous membrane of the colon was intensely inflamed, and everywhere covered with a thin layer of white pseudo-membrane. It presented a multitude of ecchymosed spots not larger than flea bites. The skin of the trunk and extremities presented a number of ecchymosed spots. (*Cat. of Med. Sect.*, 1867, p. 51.) Contributed by Acting Assistant Surgeon Joseph Leidy.

43. (107.) Portion of ileum, with solitary follicles enlarged to the size of small shot, and an apparently healthy Peyer's patch. From a soldier of the 20th Michigan, who died of pleuro-pneumonia, consecutive upon chronic diarrhoea. The solitary follicles of the large intestine were also enlarged, and evidences of pleuro-pneumonia existed on both sides. (*Cat. of Med. Sect.*, 1867, pp. 51 and 97.) Contributed by Acting Assistant Surgeon Joseph Leidy.

The next fourteen specimens are examples of follicular ulceration of the colon. In chronic catarrhal inflammation the enlarged solitary follicles of the small intestine long abide as little tumors like those in the foregoing specimens; but those of the colon speedily pass into ulceration, and the follicular ulceration is usually associated with inflammatory

thickening of the submucosa. In such cases tenesmus is sometimes present, sometimes absent; and they are spoken of as dysentery by some surgeons, as diarrhoea by others. Pseudo-membranous inflammation of the mucous surface between the ulcers is apt to supervene in these cases, and this lesion is very generally found when acute dysenteric symptoms precede the fatal termination of a chronic flux. This complication exists in a number of the specimens. Follicular ulcers can generally be distinguished from the ulcers of diphtheritic dysentery by their form; but in the extensive ulcerations found in some chronic cases it is sometimes difficult to be sure which process has produced the destruction of tissue observed. Nos. 53 to 56 are illustrations of this remark.

✓ 44. (601.) Lower portion of ileum, with ileo-cæcal valve and part of cæcum. The solitary follicles of the ileum are enlarged, the cæcum is slightly thickened and studded with minute follicular ulcers not much larger than pin-pricks. From a soldier of the 195th Ohio, age 18, who died after suffering from diarrhoea for four or five weeks. Towards the close there were febrile symptoms of a typhoid character. Minute follicular ulcers, like those seen in the cæcum, were found throughout the colon. (*Cat. of Med. Sect.*, 1867, p. 63.) Contributed by Acting Assistant Surgeon W. C. Miner.

45. (217.) A portion of descending colon, which is considerably thickened, and presents numerous well-marked follicular ulcers. From a soldier of the 23d New Jersey, who died of chronic diarrhoea contracted in the Army of the Potomac. The small intestine was inflamed in patches, and the glands of Peyer were thickened. The colon was thickened; its mucous membrane softened, and of a greenish-gray color. The ulcers were confined to the descending colon and sigmoid flexure. The lower lobe of the left lung was hepatized. (*Cat. of Med. Sect.*, 1867, p. 71.) Contributed by Assistant Surgeon E. J. Marsh, U. S. A.

46. (438.) Portion of transverse colon, presenting numerous follicular ulcers and slightly frosted with pseudo-membrane. From a soldier of the 6th Ohio Cavalry, who died of chronic diarrhoea. (*Cat. of Med. Sect.*, 1867, p. 71.) Contributed by Surgeon N. R. Moseley, U. S. Vols.

✓ 47. (121.) Portion of transverse colon, with thickened mucous membrane and deep follicular ulcers. From a soldier of the 4th Iowa Cavalry, who had suffered from chronic diarrhoea for nine months. The ileum presented evidences of catarrhal inflammation. The colon was throughout in the condition of the specimen. In the lower part of the colon patches of pseudo-membrane adhered to the mucous surface between the ulcers. (*Cat. of Med. Sect.*, 1867, p. 73.) Contributed by Surgeon George F. French, U. S. Vols.

48. (56.) Portion of ascending colon somewhat thickened, with patches of pseudo-membrane adherent to the surface and ulceration of the solitary follicles. From a soldier of the 65th New York, who died of chronic diarrhoea. The lower part of the ileum was affected by pseudo-membranous inflammation, and the colon throughout very much as in the specimen. The lower part of the left lung was affected with pleuro-pneumonia. (*Cat. of Med. Sect.*, 1867, p. 74.) Contributed by Acting Assistant Surgeon Joseph Leidy.

49. (**462.**) Portion of colon taken near the sigmoid flexure, the mucous membrane thickened, and presenting minute follicular ulcers and pseudo-membranous frosting. From a soldier of the 8th New York Heavy Artillery, who died of chronic diarrhœa. (*Cat. of Med. Sect.*, 1867, p. 75.) Contributed by Acting Assistant Surgeon R. B. Hitz.

50. (**222.**) Portion of colon, thickened, presenting numerous pseudo-membranous patches and a few follicular ulcers. From a soldier of the 27th New York, who died of chronic diarrhœa. The colon throughout was in the condition shown in the specimen, and the lower lobe of the left lung was hepatized. (*Cat. of Med. Sect.*, 1867, p. 76.) Contributed by Assistant Surgeon E. J. Marsh, U. S. A.

51, 52. (**223** and **224.**) Two successive portions of colon, with the mucous membrane greatly thickened and covered with a pseudo-membranous layer. In **224** there are many follicular ulcers, which, in three or four patches, have extended into vast eroding excavations, the largest one inch and a half by one inch. From a soldier of the 37th Massachusetts, who died of dysentery supervening on chronic diarrhœa. (*Cat. of Med. Sect.*, 1867, p. 80.) Contributed by Assistant Surgeon E. J. Marsh, U. S. A.

53. (**194.**) Portion of colon, with many follicular ulcers and a number of large, irregular, burrowing ulcers which invade the muscular coat, some penetrating even to the peritonæum. From a soldier of the 152d New York, age 24, who died of dysentery supervening upon chronic diarrhœa and measles. (*Cat. of Med. Sect.*, 1867, p. 77.) Contributed by Assistant Surgeon W. Thomson, U. S. A.

54. (**364.**) Portion of ascending; 55, (**365.**) of transverse, and 56, (**366.**) descending colon, near the rectum. The mucous membrane is somewhat thickened, and presents numerous excavating ulcers, many of which penetrate to the muscular, and some even to the peritoneal coat. These ulcers appear to have extended by burrowing in the submucous connective tissue; as a consequence, the latter hangs out in more or less extensive shred-like fringes, which are especially remarkable in **366**. From a soldier of the 27th New York Battery, who died of chronic diarrhœa contracted in the Army of the Potomac. The Peyer's patches presented the shaven-beard appearance, and the neighboring solitary glands were slightly prominent. (*Cat. of Med. Sect.*, 1867, p. 78.) Contributed by Acting Assistant Surgeon D. L. Haight.

57. (**63.**) Stomach, contracted to a tube about an inch in diameter in its pyloric half, and about two inches in diameter at the largest part of the greater curvature.

58. (**64.**) A portion of the descending colon considerably thickened, presenting numerous follicular ulcers. From a soldier of the 104th Pennsylvania, who died of chronic diarrhœa. (*Cat. of Med. Sect.*, 1867, pp. 46 and 72.) Contributed by Acting Assistant Surgeon Joseph Leidy.

In the last case the stomach appears to be in a state of extreme contraction from the anæmia resulting from chronic diarrhœa. In the next, the colon is in a similar condition from the anæmia of hæmorrhage.

59. (**458.**) Portion of transverse colon very much contracted. From a patient who died of secondary hæmorrhage after amputation of the thigh. (*Cat. of Med. Sect.*, 1867, p. 70.) Contributed by Surgeon Thomas Sim, U. S. Vols.

The next thirteen specimens are, with one exception, illustrative of the morbid processes of diphtheritic dysentery. The characteristic lesions are pseudo-membranous deposits on the surface of the mucous membrane, involving also the mucosa and submucosa, and giving rise to sloughing, the sloughs invading the tissue of the bowel as deeply as the pseudo-membranous deposit; the resulting ulcers are usually of considerable size. In the case represented by No. 63, an interesting anomaly of the right kidney existed, which is shown in No. 64.

60. (125.) Portion of descending colon, with pseudo-membranous patches and a few ulcers. From a soldier of the 93d Indiana, age 20, who died of dysentery. There were a few tracts of inflammation here and there through the small intestine. The cæcum was inflamed and softened. The transverse and descending colon ulcerated. In the sigmoid flexure and rectum the mucous membrane was almost entirely destroyed by ulceration. (*Cat. of Med. Sect.*, 1867, p. 75.) Contributed by Surgeon George F. French, U. S. Vols.

61. (135.) Portion of transverse colon, with numerous oval ulcers, which vary in size from that of a three-cent piece to that of a quarter of a dollar. From a soldier of the 95th Ohio, age 25, in whom dysentery supervened upon diarrhoea. An abscess containing twenty ounces of pus was found in the anterior superior part of the right lobe of the liver. The mucous membrane of the ileum was dark red and softened, with patches of livid green. The colon ulcerated, as in the specimen, the ulcers appearing to have resulted from the separation of diphtheritic sloughs. In the cæcum two of them had perforated, giving rise to fecal extravasation and general peritonitis. (*Cat. of Med. Sect.*, 1867, p. 76.) Contributed by Surgeon George F. French, U. S. Vols.

62. (289.) Portion of colon, with its mucous membrane thickened and coated with pseudo-membrane. There are in the piece several large eroding ulcers, which have destroyed the mucous coat and expose the transverse fibres of the muscular layer. From a soldier of the 108th New York, age 24, who died of dysentery. There were patches of inflammatory congestion in the lower part of the small intestine; the colon throughout as in the specimen. (*Cat. of Med. Sect.*, 1867, p. 77.) Contributed by Assistant Surgeon W. Thomson, U. S. A.

63. (362.) Portion of transverse colon, with numerous superficial ulcers resembling those resulting from the separation of diphtheritic sloughs. 64. (361.) Right kidney converted into a cyst about the size of a small orange, the wall of which is fibrous and about four lines thick; it is connected by a patulous ureter with the urinary bladder. Two renal arteries, the size of crow-quills, proceed from the aorta at the point of its bifurcation, and ramify upon the walls of the cyst. This cyst was situated over the second lumbar vertebra. The left kidney was apparently healthy, but the patient had had albumen in his urine. From a soldier of the 48th Pennsylvania, who died of dysentery, complicated by pleurisy. The left lung was compressed against the vertebral column by a large quantity of greenish-yellow sero-purulent fluid. There were a few ulcers in the ileum. The colon was ulcerated throughout. (*Cat. of Med. Sect.*, 1867, pp. 77 and 106.) Contributed by Assistant Surgeon W. F. Norris, U. S. A.

65. (383.) Portion of ascending colon, the mucous membrane of which is thickened, and presents numerous large excavating ulcers occupying a large portion of its surface. Detached shreds of mucous membrane, coated with lymph, hang from the edges of the ulcers. From a soldier of the 2d Battalion Veteran Reserve Corps, who died of dysentery. The colon throughout was in the condition of the specimen. (*Cat. of Med. Sect.*, 1867, p. 78.) Contributed by Assistant Surgeon H. Allen, U. S. A.

66. (367.) Portion of the transverse, and 67, (368,) of the descending colon. In both, the mucous membrane is thickened and presents numerous large irregular ulcers, such as result from the separation of diphtheritic sloughs. From a soldier of the 1st Maryland, age 22, who died of dysentery. (*Cat. of Med. Sect.*, 1867, p. 78.) Contributed by Surgeon N. R. Moseley, U. S. Vols.

68. (422.) Portion of the transverse, and 69, (423,) of the descending colon, presenting large eroding ulcers which penetrate in 422 to the muscular coat, and several of them in 423 to the peritonæum; the mucous membrane much thickened. From a soldier of the 7th Maine Battery, age 16, who died of dysentery. There was also some ulceration in the lower part of the ileum. (*Cat. of Med. Sect.*, 1867, p. 78.) Contributed by Surgeon E. Bentley, U. S. Vols.

70. (849.) Portion of colon, much thickened, with jagged and extensive ulcers, at the edges of which the mucous membrane hangs in shreds; some pseudo-membrane adheres to those portions of mucous membrane which are not destroyed. From a negro, age 50, who died of dysentery in the Freedman's Hospital, Washington. Metastatic foci were found in the right lobe of the liver, and scattered tubercles in both lungs. (*Cat. of Med. Sect.*, 1867, p. 79.) Contributed by Assistant Surgeon E. Bentley, U. S. A.

71. (148.) Portion of colon, the surface of which has been extensively eroded by ulceration, leaving, however, numerous little islets of intact mucous membrane, in many of which pin-head ulcers of the solitary follicles can be seen. From a soldier of the 62d New York, who died of diarrhœa, (dysentery?) (*Cat. of Med. Sect.*, 1867, p. 73.) Contributed by Acting Assistant Surgeon E. Hartshorne.

72. (1280.) Cæcum and part of the colon, with diphtheritic sloughs. From a soldier of the 11th U. S. Infantry, who died of dysentery, at Fort Sill, Indian Territory, September 13, 1874. This man was first taken sick with symptoms of acute diarrhœa, which passed into fatal dysentery. In this case the cæcum and ascending colon had become adherent to the abdominal walls in the right iliac region, and one of the ulcers in each having perforated, a fecal abscess had formed in the abdominal walls, which communicated by one opening with the cæcum, by another with the ascending colon. Two other perforations in the colon had led to fecal extravasation into the abdominal cavity and general peritonitis. (Specimen received since Catalogue was printed.) Contributed by Acting Assistant Surgeon C. W. Knight.

The next five specimens are from cases of scurvy. The cribriform condition of the aortic valves shown in No. 75 has been supposed to be a characteristic lesion, but this is somewhat doubtful. With these specimens should be considered Nos. 26, 27, and 28, which present the typhoid lesions as modified in scorbutic subjects.

73. (4.) Larynx, posterior third of tongue, half arches, and tonsils; both tonsils the seat of foul, irregular, and gangrenous ulceration. From a patient who died in Marine Hospital, New Orleans, in 1862. One of a number of fatal cases in the same hospital in which gangrenous ulceration of the mouth and throat occurred in debilitated and anæmic (scorbutic) men. (*Cat. of Med. Sect.*, 1867, p. 45.) Contributed by Acting Assistant Surgeon R. K. Browne.

74. (6.) Anterior half of larynx, with posterior third of tongue attached. Situated on the right side, below the rima glottidis, is a deep phagedenic ulcer, which has dissected between the cricoid and thyroid cartilages. The perichondrium of the cricoid is destroyed, and the cartilage itself, at the bottom of the ulcer, is of bone-like hardness from calcareous deposits. From a soldier who died in the Marine Hospital, New Orleans, in 1862. One of a number of fatal cases in the same hospital in which gangrenous ulceration of the mouth and throat occurred in debilitated and anæmic (scorbutic) men. (*Cat. of Med. Sect.*, 1867, p. 29.) Contributed by Acting Assistant Surgeon R. K. Browne.

75. (840.) Aortic valves, slightly cribriform at their edges. 76. (838.) A portion of ileum with pin-head enlargement of solitary follicles, and slight thickening of the Peyer's patches. 77. (839.) A portion of the greatly-thickened sigmoid-flexure, with small follicular ulcers. From a man, age 29, who died at Brownsville, Texas, of scorbutic diarrhoea, after about two months' illness. (*Cat. of Med. Sect.*, 1867, pp. 14 and 65.) Contributed by Assistant Surgeon Ira Perry, 9th U. S. Colored.

The next three specimens are examples of metastatic foci, quite like those which occur in pyæmia after gunshot wounds, but resulting in these cases from other causes. The point of departure of the metastatic process appears to have been a subcutaneous abscess in No. 78, an ulcerated colon in No. 79, and a collection of pus in the left pleural sac in No. 80.

78. (848.) Upper and middle lobes of right lung, containing numerous metastatic foci. From a freedman who died of pyæmia consecutive to superficial abscess of the right hand, which did not involve either bone, periosteum, or tendons. Metastatic foci were found in both lungs and in the kidneys. (*Cat. of Med. Sect.*, 1867, p. 35.) Contributed by Assistant Surgeon E. Bentley, U. S. A.

79. (449.) Section of right lobe of liver, containing numerous metastatic foci, from a quarter to half an inch in diameter. From a soldier of the 2d New York Heavy Artillery, who died of dysentery. Jaundice and bilious vomiting were observed before death. The colon presented extensive diphtheritic ulceration. (*Cat. of Med. Sect.*, 1867, pp. 80 and 93.) Contributed by Assistant Surgeon Wm. F. Norris, U. S. A.

80. (325.) Perpendicular section of spleen, which is lobulated, considerably enlarged, and irregularly infiltrated with metastatic masses. When received at the Museum the spleen was so soft as to be easily torn with the finger, of a livid blood-color in part, partly bluish-black; the metastatic foci bright yellow, and consisting entirely of granular matter, in which were embedded the partly disintegrated anatomical elements of normal splenic structure. From a soldier of the 6th Wisconsin,

in whom pain in the side, cough and hectic followed a malarial fever. The left pleural sac contained a pint and a half of purulent fluid; the right, about six ounces of serum. Peyer's patches presented the appearance of "the newly-shaved chin." The solitary glands of the ileum were enlarged, but not ulcerated. The liver was enlarged, and contained a large number of metastatic foci (*Cat. of Med. Sect.*, 1867, p. 99.) Contributed by Assistant Surgeon G. A. Mursiek, U. S. Vols.

The next sixteen specimens are illustrative of tubercular deposits and scrofulous inflammation. These processes were frequently manifested in intense forms among the colored troops and freedmen. Nos. 81 to 85 are a series of specimens from a remarkable case of general tuberculosis, accompanied by scrofulous inflammation of various organs, characterized by bulky cheesy deposits. No. 86 is an illustration of bulky cheesy deposits in the pleural sac of a scrofulous freedman. Nos. 87, 89, 90, and 91 are examples of tubercular ulceration of the bowels. Nos. 88 and 92 of tubercular peritonitis. Nos. 93, 94, and 95 are examples of tubercular deposits in the spleen, and No. 96 of cheesy deposits in the left suprarenal capsule.

81. (540.) Portion of base of cranium, with cervical vertebræ attached. Anteriorly, the earious bodies of the vertebræ have been denuded by an abscess, which communicated through the anterior occipito-atloid space with the base of the brain. Posteriorly, the spinal cord is seen *in situ*. The dura mater spinalis is surrounded externally by a cheesy mass, which is most abundant in the region of the atlas and axis. The basilar process of the occipital bone, the declivity of the sphenoid, and the sella tureica are covered with a cheesy mass, situated for the most part between the bone and the softened dura mater. 82. (541.) The bony bridges and spinous processes of the second, third, and fourth cervical vertebræ, with soft tubercular deposits between the external periosteum and the bone on the right side; some newly formed bone on the left. 83. (542.) Lower part of sternum, with costal cartilages and parts of ribs attached. A cheesy mass involves the substance of the sternum at the attachment of the 5th and 6th right costal cartilages. On the left side there is a similar mass at the junction of the 4th rib with its cartilage. 84. (543.) Urinary bladder with prostate and vesiculæ seminales attached, both containing cheesy deposits. The central portion of the prostatic deposit has softened into an abscess, which communicates with the urethra. 85. (544.) Heart, presenting a Cruveilhier's spot about an inch in diameter on the anterior surface of its right ventricle. From a colored recruit, who died after a few months' illness. Besides the extensive lesions exhibited in the specimens, cheesy deposits were found in the lymphatic glands, in the lungs, &c. (*Cat. of Med. Sect.*, 1867, pp. 16, 112, 117) Contributed by Acting Assistant Surgeon W. C. Miner.

86. (567.) Section of the left side of the thorax. The lung is connected to the walls of the chest by a thick cheesy layer, which also fills the anterior mediastinum. From a freedman, who died in L'Ouverture Hospital, Alexandria, Virginia. The cheesy layer coated the whole of the left lung, and invaded the lower portion and the diaphragm. The heart was pushed to the right, so that its apex was at the left edge of the sternum. The right lung was normal. The spleen contained tubercles about the size of peas. (*Cat. of Med. Sect.*, 1867, p. 40.) Contributed by Acting Assistant Surgeon W. C. Miner.

87. (692.) A portion of ileum, taken at the ileo-cæcal valve, with tubercular ulceration of Peyer's patches and of some of the solitary follicles. On the peritoneal surface of the piece, especially opposite the ulcers, are several small tubercles. 88. (693.) Portion of omentum, in which several tubercles, the size of millet-seed, are embedded. From a consumptive colored woman who died in the Freedman's Hospital, Washington, D. C., and who suffered from diarrhœa and dropsy for some time before death. Both lungs were found tubercular, the left presenting numerous vomicæ. There were also tubercles in the liver and spleen, about a pint of serum in each pleural cavity, and four ounces in the pericardium. The abdominal cavity was distended with fluid, and presented evidences of tubercular peritonitis. The ileum presented numerous ulcers, as in the specimen, and ulcers of the solitary follicles were numerous in the cæcum and scattered throughout the colon. (*Cat. of Med. Sect.*, 1867, pp. 38, 82, and 88.)

89. (252.) A portion of ileum presenting tubercular ulceration. From a soldier of the 3d Vermont, age 23, who died of tuberculosis and dysentery. The lungs were tubercular. The small intestine presented numerous ulcers similar to that shown in the specimen. For the most part these ulcers had their long diameter transverse to the length of the intestine, and miliary tubercles existed on the peritoneal surface opposite to them. The mucous membrane of the colon was thickened, ulcerated, and coated between the ulcers with patches of pseudo-membrane. (*Cat. of Med. Sect.*, 1867, p. 83.) Contributed by Acting Assistant Surgeon Joseph Leidy.

90. (428.) Piece of upper portion of the jejunum, presenting, near its middle, a large ulcer, the long diameter of which is transverse to the length of the intestinal canal. On the peritoneal surface, opposite the ulcer, are a number of small tubercles. 91. (431.) A portion of the cæcum, with the vermiform appendix. An irregular, ragged ulceration surrounds the orifice of the appendix, the mucous membrane of which is ulcerated throughout. The cæcum presents a number of large, irregular ulcers. From a teamster who died of consumption and diarrhœa. Both lungs were found tubercular. The larynx was ulcerated. Many ulcers, resembling those in the specimen, existed in both small and large intestines. (*Cat. of Med. Sect.*, 1867, pp. 24, 29, and 84.) Contributed by Acting Assistant Surgeon H. M. Dean.

92. (664.) Several knuckles of intestine, beset with numerous thread-like adhesions, and presenting on the peritoneal surfaces of intestines and mesentery a number of tubercles of different sizes. From a soldier of the 27th U. S. Colored, age 21, who died of phthisis. Both lungs were tubercular; the bronchial glands enlarged. The surfaces of all the abdominal viscera were in the condition exhibited in the specimen. (*Cat. of Med. Sect.*, 1867, p. 89.) Contributed by Surgeon E. Bentley, U. S. Vols.

93. (298.) Spleen, with a number of small tubercles just beneath its peritoneal coat. From a soldier of the 145th Pennsylvania, age 29, who died of chronic diarrhœa. There were tubercles in both lungs, and the mucous membrane of the colon was ulcerated. (*Cat. of Med. Sect.*, 1867, pp. 73 and 99.) Contributed by Surgeon E. Bentley, U. S. Vols.

94. (564.) Spleen, laid open by a longitudinal incision, showing in its interior and on its external surface numerous tubercles. From a negro who died of phthisis, accompanied by diarrhœa. Tubercular deposits and cavities were found in the lungs, miliary tubercles in the liver, and tubercular ulcers in the intestinal canal. (*Cat. of Med. Sect.*, 1867, p. 99.) Contributed by Acting Assistant Surgeon W. C. Miner.

95. (632.) Spleen, weighing thirteen ounces, containing numerous tubercles the size of hazelnuts. From a soldier of the 8th U. S. Colored, who died of general tuberculous. Tubercular deposits were found also in the lungs and liver, and the peritonæum was studded with tubercles. (*Cat. of Med. Sect.*, 1867, p. 100.) Contributed by Assistant Surgeon E. D. Buckman, U. S. Vols.

96. (841.) Left suprarenal capsule infiltrated with cheesy masses. From a soldier of the 118th Colored, age 20, who died of scorbutic diarrhœa. The lower lobe of the right lung was hepatized; the mucous membrane of the lower part of the ileum and the colon inflamed but not ulcerated, and scattered tubercles were found in the liver. (*Cat. of Med. Sect.*, 1867, p. 109.) Contributed by Assistant Surgeon Ira Perry, 9th U. S. Colored.

The next five specimens are from a remarkable example of multiple melanotic cancer.

97. (824.) Lobulated melanotic tumor, weighing thirteen ounces, from the left inguinal region. 98. (828.) A portion of the lower lobe of the right lung, presenting a lobulated melanotic mass about the size of a hen's egg at its inferior angle. 99. (829.) Section of liver, presenting several melanotic nodules; the largest were three-fourths of an inch in diameter. 100. (830.) Portion of pancreas, presenting a number of melanotic nodules, the largest about the size of a pea. 101. (831.) Right kidney, the pelvis of which is occupied by a rounded melanotic nodule about an inch and a half in diameter. From a freedman, age 60, in whom numerous other similar deposits were found. The melanotic masses were soft, and composed for the most part of irregular, more or less polygonal cells about one-thousandth of an inch in diameter, containing large oval nuclei and brownish-black pigment granules. (*Cat. of Med. Sect.*, 1867, pp. 25, 41, 95, 97, 108, and 117.) Contributed by Assistant Surgeon E. Bentley, U. S. A.

The four remaining specimens present anomalies of the liver, spleen, and kidneys.

102. (639.) Perpendicular section through right lobe of liver, showing a great number of cysts and sinuous passages, the largest nearly a quarter of an inch in diameter. These are dilated gall ducts, which, in the recent specimen, contained a yellowish serum-like fluid. From a soldier of the 23d U. S. Colored, who died of fever which began as intermittent, and assumed a typhoid character as it progressed. Some thickening of the patches of Peyer was observed at the autopsy. The gall-bladder contained a little viscid bile. (*Cat. of Med. Sect.*, 1867, p. 95.) Contributed by Surgeon E. Bentley, U. S. Vols.

103. (534.) Deeply lobulated spleen, with six supernumerary spleens attached; the latter vary from one inch to less than half an inch in diameter. From a soldier of the 146th New York, who died after resection of the hip, performed for gun-shot fracture of the left femur. (*Cat. of Med. Sect.*, 1867, p. 97.) Contributed by Assistant Surgeon W. F. Norris, U. S. A.

104. (29.) Right kidney, laid open; larger than the left; weight twenty-four ounces; filled with cysts, the largest of which attains the size of an English walnut. From a soldier of the 2d Vermont Sharpshooters, who died of chronic diarrhœa. No attention had been drawn to his kidneys during life. The left kidney was in a similar condition, though not so large; it weighed fourteen ounces. (*Cat. of Med. Sect.*, 1867, p. 107.) Contributed by Surgeon J. S. Hildreth, U. S. Vols.

105. (536.) Urinary organs, showing extensive alterations resulting from stricture of the urethra. The pelvis of the right kidney is greatly dilated, and its pyramids encroached upon, so that the kidney forms a multilocular cyst, the walls of which are composed of atrophied renal tissue. The pelvis of the left kidney is also greatly distended. The ureters are dilated to size of the forefinger. The muscular coat of the bladder is hypertrophied, the thickened bundles of muscle forming an arcular arrangement, through the meshes of which a number of herniæ of the mucous membrane have taken place, forming oval cysts, the largest of which is over two inches, the smallest about a quarter of an inch in diameter. These cysts communicate with the cavity of the bladder by comparatively narrow orifices. From a soldier of the 122d Ohio, age 43, who had a stricture of the membranous portion of the urethra, which still, however, permitted the passage of urine. He was admitted to hospital in articulo mortis, and had constant dribbling of urine, with involuntary evacuations of the fæces. (*Cat. of Med. Sect.*, 1867, p. 109.) Contributed by Assistant Surgeon R. F. Weir, U. S. A.

PLANS



